

Treatment of radiation symptoms (239-242)

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Control of endotoxin shock by OK-432

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A biologic response modifier OK-432 induces several cytokines and has a radioprotective activity in mice and man. Although most biologic response modifiers show a radioprotective activity before irradiation, OK-432 in combination with G-CSF protects irradiated mice even after irradiation. Inasmuch as infection being a major cause of death after 8.5 Gy-irradiation, we investigate whether OK-432 protects mice from shock caused by a bacterial endotoxin LPS. All BDF1 mice die within a day after LPS injection. However, administration of OK-432 at 24 h before LPS injection rescues all LPS-injected mice. OK-432 inhibits gene-induction by LPS of inflammatory cytokines; IL-6, IFN- γ , and nitric oxide synthase mRNAs.

The immunomodulatory effect of OK-432 is useful in controlling acute bone marrow syndrome caused by irradiation.

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Experimental Radiation Ulcer in Colon and Effects of Anti-Ulcer Drug

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Radiation colitis may be encountered as a most harmful after-effects of treatment of intrapelvic malignancies by irradiation. The purpose of this study is to make a radiation ulcer in rat colon and to evaluate the effects of anti-ulcer drug (sucralfate). A focal irradiation of X-ray, more than 20Gy, induced well demarcated ulcerative lesion in colon mucosa of male Wistar rat. Microscopically, ulcerative lesion showed complete disappearance of colonic crypts and granulation formation of mucosa and submucosal edema. Ulcerative lesions of treated rats by orally administered sucralfate, 500mg/kg/day, were diminished in size.